DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I. SATURDAY, JANUARY 20, 1849. NO. 3.

S. W. COLE, EDITOR. QUINCY HALL, BOSTON. J. NOURSE, PROPRIETOR.

COLLECTION OF SEEDS, SCIONS, &c.

THE farmer is always busy. He has hardly time to secure his crops, and prepare for winter, before the old year is gone, and the new announces the beginning of another campaign, and he must give his attention to future operations. The winter is a favorable time for collecting seeds, scions, potatoes, and all new, rare, or excellent articles, with a view to agricultural improvement.

Many of these things may be collected conveniently during the winter, as a person is travelling about the country, or meeting with those who can supply improved productions. If all these things are neglected until they are wanted in the spring, the most of them will be postponed one year longer; for it is impossible to do many things at one time.

The most economical and the most pleasant of all modes of improvement, is the procuring of superior productions. The best of seed costs but a little more than the poorest; and from a small quantity, enough can soon be obtained to supply a whole farm.

A single potato, of superior quality, may be multiplied, in a few years, so as to furnish seed for the whole farm, and produce a large increase in the crops, or add twenty or twenty-five per cent. to their value by extra quality.

We once gave a friend a paper of superior parsnip seed, and he remarked, after trying the quality of the produce, that the seed was worth a dollar to him. The cost of the seed was only a few cents. Another, to whom we gave an ear of corn, observed that it was worth several dollars to him, as by it he had improved his whole crop. A single scion may be increased, in a few years, so as to furnish means for the improvement of a large orchard. From one scion of a new and superior cherry, set rather late in spring, we have fifteen or twenty trees in bud, and they may be soon increased to thousands.

PREPARATION OF FRUIT SEEDS.

The seeds of all the principal species of fruits, if not sowed in fall, should be prepared early in winter, or by midwinter, by mixing them with moist sand or loam, and keeping them in that condition. They may be kept out of doors, under a shelter, or in the cellar. The operation of the frost on them is not necessary, excepting on plum and cherry stones, when kept dry till winter.

When cherry and plum stones are put into loam, as soon as separated from the meat, the effects of the atmosphere and earth destroy the cement that holds the stone together. We have thousands of these trees from stones never exposed to frost. When they become dry, and firmly cemented together, and there are but a few months for them to lie in loam, and the weather cold, so that there is less action on them, it is best to expose them to frost.

Peach stones, for spring planting, we bury in earth, below the action of frost, or put in earth and set in the cellar by the last of winter, or before; then they are ready to plant at any time till June; but if exposed to frost at the surface of the earth, or in boxes, they open and sprout too early.

NORFOLK AGRICULTURAL SOCIETY.

We are pleased to learn that a movement is made to form an Agricultural and Horticultural Society in Norfolk county, and that the prospect is very encouraging. There are many gentlemen that will most cheerfully aid in this cause, and their intelligence, energy, and zeal will be a sure guaranty of success. They will devote time and talent to the enterprise, and some, of their abundance, will contribute liberally to the funds of the association.

One important consideration presents itself to the citizens of every county in this state in which there is no agricultural society. They contribute equally to the general fund, from which liberal donations are paid to societies in other counties.

But a stronger and more noble motive for action in this useful undertaking, is the great and happy results from such associations, in diffusing useful information, and encouraging improvements that have the most salutary effects on the prosperity of the country, and those engaged in the various branches of cultivation.

In complying with the request of W., we take the liberty to say that the gentleman is E. K. Whittaker,

Esq., one of the prime movers in this useful purpose, who is zealously laboring for its accomplishment. May complete success attend all such laudable efforts.

For the New England Farmer.

Mr. Editor: A letter was recently addressed to General Dearborn, Mayor of Roxbury, by Elijah Perry, Esq., of Dover, asking for his opinion upon the subject of the formation of an Agricultural Society in the county of Norfolk.

The reply of General Dearborn has been placed in my hands, a copy of which I take the liberty to send you for publication; and would further add, that a call, now in circulation, for a public meeting, to be holden at Dedham, to carry into effect the object proposed, will be forwarded to you in the course of a few days. W.

Hawthorn Cottage, Roxbury, *Dec.* 18, 1848.

Dear Sir: Your letter of the 13th inst. has been received with great pleasure, for I fully concur with you in opinion, as to the expediency of establishing an Agricultural Society in the county of Norfolk;—but horticulture should also be included; for that branch of rural industry is very important in many of the towns, and is annually becoming much more so, from the increase of population, in such as have manufacturing establishments, and the rapidly extending bounds of the commercial emporium of the commonwealth.

The improvements which have been made in all the departments of husbandry and gardening, in Great Britain, France, Holland, and the United States, within the last half century, are the results of experiments performed under the patronage of associations, founded by the proprietors and cultivators of the soil.

Whatever services I can render, in the foundation of an Agricultural and Horticultural Society, are at the command of those gentlemen who may be disposed to coöperate in measures for the speedy organization of such an institution.

The culture of the earth is the basis of all the progressive movements of man, in the march of civilization. It is the precursor of letters, science, the arts, manufactures, navigation, and commerce; and those nations have ever been, and ever will be, the most enlightened, prosperous, and powerful, which have illustrated by experiments, or may evince the greatest disposition for the development of all those branches of intelligence, and of the industrial arts.

The people of this republic have natural resources and advantages for becoming the most distinguished in individual and national independence, wealth, and happiness, and are beyond those of any other portion of the globe. It is, therefore, the imperious duty, and for the direct interest of every citizen, to zealously act as a determined co-laborer, for rendering available, both for his own and his country's prosperity, the various, diversified, and immense sources of advancement in all the subdivisions of labor and intellectual proficiency which are at his command.

The Americans are eminently industrious and enterprising, and they have only to avail themselves of the infinite blessings which their vast territory and excellent institutions of government afford, to become the admiration of the world, from the lofty position which they can, must, and will obtain within the next fifty years.

Allow me to suggest the propriety of obtaining signatures in as many of the towns in the county as possible, to a recommendation, and invitation to a meeting to be holden in Dedham, in the month of February next, for taking into consideration the expediency and importance of organizing an Agricultural and Horticultural Society. With assurances of great respect,

Your most obedient servant,

H. A. S. DEARBORN.

Elijah Perry, Esq.

OHIO CHEESE.

Large quantities of cheese are brought from Ohio to this market, and it is generally of excellent quality; and we are pleased to learn, by the article which we copy below, from that excellent paper, the Ohio Cultivator, that this branch is so profitable in that state.

Mr. H. Dean, an extensive dealer in dairy productions, in Faneuil Hall Market, had this season, from Ohio, one thousand cheeses, made to order, in size, form, and quality, in English dairy style; and they ranked among the very finest from any section of the country. A friend at our elbow, an excellent judge, says he never saw any finer cheese; and the extra price at which they sold was an evidence of their superiority. Mr. Dean had from the same state over three hundred boxes of pine-apple cheese, of the greatest excellence.

We name these facts to show the importance of skill in the various branches of agriculture. In these cases, articles of superior quality pay the farmer a good profit, and yet bear the expense of transportation nearly a thousand miles, pay the dealer well, and the consumer is pleased in obtaining a superior production at so fair a rate.

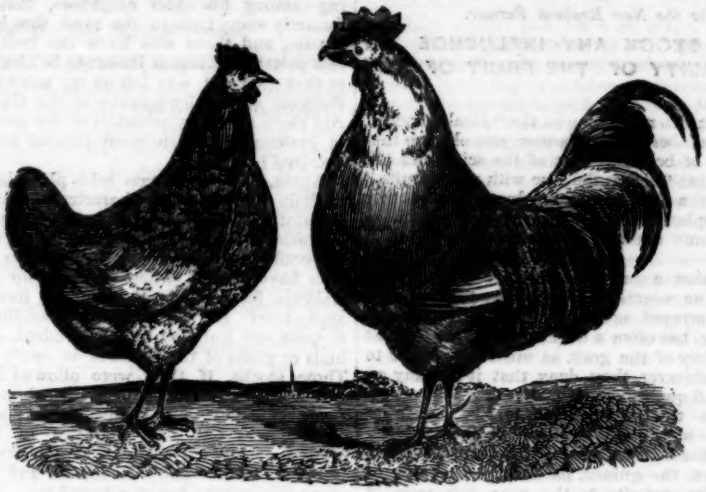
Profits of Dairy Farming. — For a year or two past there has been a rapid increase in the dairy business of Ohio — especially in the manufacture of cheese — and we believe that this branch of farming is found more profitable than most others, when rightly managed. The following is one among many items of the kind that could be furnished.

Orrin Willson, Esq., of Huntsburgh, Geauga Co., O., has kept seventeen cows, only, the past season, and without any very extra keeping, has realized from his dairy the sum of six hundred and six dollars, which gives the sum of thirty-five dollars and sixty-four cents each cow. This does not include the calves sold, or hogs fattened from the dairy, and a quantity of butter and cheese yet on hand.

THE FARMER.

He is a public benefactor, who, by the prudent and skilful outlay of his time and money, shall make a single field yield permanently a double crop; and he that does this over a square mile, virtually adds a square mile to the national territory; nay, he does more; he doubles to his extent the territorial resources of the country, without giving the state any larger territory to defend. All hail, then, to the improvers of the soil! Health and long life to their fortune! May their hearts be light and their purses heavy; may their dreams be few and pleasant, and their sleep the sweet repose of the weary! May they see the fruits of their own labor, and may their sons rear still heavier harvests!

Most mountains present their precipitous faces to the sea and their slopes to the land.



DORKING HENS.

The Dorking is the most distinguished race of hens in England and in this country. They are from the town of Dorking, in that country, where great pains are taken in their breeding, and large numbers are sent thence to different parts of the kingdom, and to other countries. These fowls are of a large size, with short, stout bodies, and short legs. They generally have five toes, and whole chapters might be written on the subject of this extra toe being indispensable to constitute a genuine Dorking, and a very good case made out on either side. The color varies from pure white to brown, and to black clouded with white.

Dorkings are mild, peaceable fowls, bearing confinement to a limited range with patience, especially when brought up in this way from their *chickenhood*. The biddies are good layers, kind and affectionate mothers. Their eggs are pure white in shell, and the outer meat of a very fine, delicate texture, and delicious flavor, excelling the dark-colored, and coarse, unsavory eggs of the large India fowls. The flesh is noted for its fine texture, juiciness, and excellent flavor. They rank with the very highest in this respect.

The protector is usually adorned with varied and beautiful colors; he is of a stately and dignified deportment, not naturally pugnacious, avoiding offensive warfare, and the invasion of others' rights, but fighting desperately in defence of his own prerogatives, and for the protection of the subjects of his dominions.

The above engraving was drawn from a noble pair of fowls, which we have directly from the importer. The protector weighed ten pounds, and notwithstanding his large size, he is remarkable for his agility. Lest some persons should take the trouble to send orders for these fowls, we would remark, that we have sent them to a distant friend, and we have none of this race on hand.

After all that is said of the Dorkings, or any other fine races of hens, selections may be made from our native hens that fully equal them, all things considered, though these noted breeds may excel in some peculiar properties, as the Polands for beauty and non-sitters, the Bantams for ornament, small size, and harmlessness in gardens.

POTATOES FROM SEED.

Most, if not all, of our valuable potatoes have been raised from seed. With this valuable esculent, as with fruits, from raising numerous kinds from seed, we occasionally find an excellent new variety, which may in some respects excel other kinds in general use.

This should lead farmers to make experiments, as potatoes may be raised from seed, with as little trouble as fruit-trees, and it takes far less time to test a new variety; as the potato will come to perfection in less time than a fruit-tree will attain sufficient size to set out as a standard.

We commenced this article with a view of recommending that the seed should be prepared the same as seeds of fruit-trees, instead of sowing them dry in spring. Put the seeds in damp sand or loam, set them in the cellar, and keep them slightly moist till the time of sowing.

If kept dry, and sowing be delayed till warm weather, only a part of the seeds will vegetate; but if sowed dry in March, they will generally vegetate freely, as they lie a while in the earth, before vegetation commences, which serves as a preparation.

If the seeds be put into sand late in winter, or early in spring, it will be in season. We received a lot of seeds last year, rather late in the season, and we put them into moist loam the last of March, and sowed them the last of April. They came well, and by extra culture we raised, the first season, some potatoes of medium size, say four inches long, and nearly two in diameter.

For the New England Farmer.

HAS THE STOCK ANY INFLUENCE ON THE QUALITY OF THE FRUIT OF THE GRAFT?

Mr. Editor: In remarking on the "Healy Apple," in the first number of the Farmer, you observe that "it partakes of both the fruit of the scion and the stock," and that "this is the case with many fruits." I have noticed a similar opinion advanced respecting some other apples, in our agricultural papers, and have found it to some extent prevalent among practical farmers.

Is this opinion a correct one? In examining the best writers on vegetable physiology, they will be found to be arrayed against it. While they admit that the stock has often a decided influence on the vigor or fertility of the graft, as must be evident to every close observer, they deny that it has any on the nature and quality of the fruit.

Lindley, in the Introduction to his Guide to Gardening, — which Introduction is endorsed by Loudon with the highest encomiums, — says, "Those who fancy that the quince, for example, communicates any of its austerity to the pear, can scarcely have considered the subject physiologically, or they would have seen that the whole of the food communicated from the alburnum of the quince to that of the pear, is in nearly the same state as where it entered the roots of the former. Whatever elaboration it undergoes must necessarily take place in the foliage of the pear, where, far from the influence of the quince, secretions natural to the variety go on with no more interruption than if the quince formed no part of the system of the individual.

A few years since, in conversation on this subject with Dr. Gray, the distinguished Professor of Botany in Harvard University, I found that his views coincided precisely with those I have quoted; he had no belief whatever that the fruit of the graft was in any way affected, in its quality, by the stock.

It would seem, then, that we have science and experience at variance on this question; or rather, I should say, science is here opposed to what is, by some, alleged as experience, for I have never been able to satisfy myself that the cases which are cited in proof of certain fruits, partaking of the character of both the fruit of the scion and the stock, are really entitled to be considered as authorities and settling the question. I have never seen such a case; and I know of no fruit that has such a character. It seems to me far more reasonable to suppose that there must be some mistake or false judgment in those who pronounce upon the fruit supposed to possess this double character, than that the laws of vegetable physiology should fail in their uniformity. Besides, these supposed cases are generally of a vague and an equivocal character; the fruits of the graft have only some slight resemblance to those of the stock; but there is no instance of a decided and marked character, such as an acid apple being changed to a sweet one, by being grafted on a sweet apple stock. Such an instance, if established, would settle the question, and I once supposed that I had met with it.

A friend of mine presented to me what he called the Sweet Golden Russet, and stated that it was produced by grafting the Golden Russet, which is rather an acid apple, upon an old stock of a sweet apple-tree. And in confirmation of his account, he stated that his father set the grafts, as Golden Russet grafts; and that those of the natural branches of the tree in which they were set, continued to produce sweet apples. He was positive as to the fact of the transformation. The apples were of a similar shape, size, and color with the Golden Russet, but they were sweet. I found, however, on inquiring among his older neighbors, that there were formerly many trees in the town that bore a Sweet Russet, and those who knew the fruit pronounced this pretended Golden Russet to be identical with it; so that no doubt was left on my mind that this was the fruit grafted by mistake as the Golden Russet. Are there not many mistakes of the same kind made in grafting, by which many persons are innocently deceived?

Again, if such changes take place in the quality of fruit arriving to the character of the stock, what certainty would there be, in grafting to any particular variety, that we should have that variety when the graft came into bearing? But does any nurseryman have doubts, when he grafts or buds to the Baldwin for example, that he will have a Baldwin apple-tree? He takes a row of seedling stocks, — suppose one hundred or five hundred, — and inserts buds or grafts of the Baldwin in every one of them. These stocks, if they were allowed to grow up, would doubtless produce fruit of various descriptions, sweet and sour, bitter and insipid; summer, fall, and winter; but the character of the Baldwin grafted or budded to them is not changed; it remains the same; and it is known and identified by every person who has ever tasted it.

We should expect changes, and great changes too, if the stock has an influence on the fruit of the graft; for if a change takes place from this cause in any one case, why should it not in other cases? But it is said there are differences in Baldwins. But may these differences not result from other causes? A poor soil makes a diminutive fruit, a rich soil a large one. The north side of a tree makes a green Baldwin, the south side a red one; and the latter has a pleasanter flavor, from the influence of the sun, than the former. Many apples, too, pass for Baldwins that are only such in name; and the conclusion is at once drawn, that it is the stock that made the difference, when the stock has never come in contact at all with a graft of the Baldwin.

But I will conclude by expressing the hope that this question may be further discussed in your journal, and that those who think they have facts to warrant the conclusion that the stock does influence the quality of the fruit of the graft, will produce them, with such specifications as will give us all that is to be known on the subject, and then produce the fruit itself.

ALLEN W. DODGE.

Hamilton, *Jan.* 8, 1848.

Editorial Remarks.

Our friend has presented this subject in a very clear and candid manner, and brought strong arguments and high authorities to support his position. Those who have occasionally heard or read our views on this subject are aware that they are in the affirmative of the question at the head of this article. We have but a few words to say on it at present; but as it is now fairly before our readers, we should be pleased to have any facts that throw light on the subject. Our remarks on the "Healy Apple" were founded on the statement of Mr. Healy, and that of a friend who had long been acquainted with the Healy Apple, and that on which it was grafted. We intend to investigate that subject another season by examining that fruit on the trees.

The earth is believed to increase in heat a degree in every fifteen or twenty yards in depth.

For the New England Farmer.

TO CULTIVATE PEACHES AT THE NORTH.

Mr. Editor: There are few persons to whose taste the peach is not a most delicious fruit; and certainly, at the season of its maturity, when autumnal complaints, such as dysentery and fevers, prevail, there is none more conducive to health. There is a tradition of a peach-tree, the fruit of which, if eaten, conferred immortality. But as none of the trees of this variety have been received in this country, the writer will content himself with pointing out to his friends who reside a little to the north of a line, beyond which the peach is not able to withstand, in the orchard, unprotected, our wintry climate, how they may cultivate successfully, on a small scale, for their own use, with a little care, some of the fine early varieties. For this purpose, select a few trees budded on plum stocks, of the best early sorts, and set them in a sheltered situation, with a southern aspect. After having grown one season, in November cut back one third or more of the growth evenly over the whole tree. Pursue this course annually. On the approach of winter, cover the roots with leaves, to protect them from extreme frost. Bend in the branches towards the centre, and carefully tie them. Having obtained some branches of hemlock, or other evergreens, set them in the ground around the tree, and bring them together over the top, and tie them snugly around the tree. In this situation the trees may stand till all danger from frost is over, when their covering may be removed, and the branches released will return to their natural position, when they will soon put forth blossoms and leaves, and produce, in due season, a crop of fruit; thus amply rewarding the little care bestowed on their protection.

JOSIAH NEWHALL.

Lynnfield, *Jan.* 1849.

Editorial Remarks.

We are much pleased with Gen. Newhall's mode for peach culture in the north. The plum stocks will render the trees dwarfish, and more hardy from a slower growth. Slow-growing peaches, that produce the same from seed, are also adapted to this mode of culture. We have no doubt that, by this plan, peaches may be raised in the northern part of the Union. The warm sun, on mild days in winter, prepares the peach for destruction by frost. Against this, the covering of evergreens would be an effectual preventive. They would also retard blossoming in the spring until the season of frost is past. There is less danger from late spring frosts in the north, than in regions farther south, as the weather is more uniform, and the change from winter to spring more rapid and regular.

For the New England Farmer.

PRECISION IN AGRICULTURAL EXPERIMENTS.

Mr. Editor: Mr. Colman, in his third report on the agriculture of Massachusetts, makes some just complaints of the want of precision among farmers in making their experiments. For instance, in regard to the effects of lime, to his inquiries whether they had used it, they answered in the affirmative; and to the further question, whether they received any benefit, they *thought* they did. When asked how much, they could not tell. They limed the whole piece alike; and he mentions a number of inquiries, to which similar answers were given, which, as he says, proved just nothing at all. How often do we find, in agricultural journals, statements of the success of some particular experiments contrasted with that of neighboring fields, perhaps over a fence, and the like; and from thence an inference is drawn, so that the result exactly proved a favorite hypothesis. It is true such statements may have some little weight, but very small to what they would, if different portions of the same field were alternated with the same experiment, and the result an average of the whole.

I never was so much impressed with the importance of more discriminating experiments as when I was lately reading two volumes of the Patent Office Reports. I find, after wading through a huge mass of testimony respecting the rot in potatoes, no possibility of drawing any satisfactory conclusions from it. Now, it appears to me that where testimony shows such different results, in circumstances apparently the same, and these different results become numerous, the inference would be inevitable that some hidden cause, either alone or in connection with some visible ones, had an effect in producing these results; and where this proof grows so strong of the existence of some secret agent or agents, of potent energy, the great object of our researches ought to be to lift or penetrate the veil that hides these agencies from our sight.

I recollect, some years since, in reading an elaborate investigation on the subject of blight in wheat, by Mr. Colman, after mentioning some atmospheric agencies which evidently were connected with the blight of that year, he stated that some wheat equally exposed to these escaped, and he inferred a *susceptibility* to disease in some places more than in others. Ah! here is the poser; this susceptibility to disease, or, rather, as I should say, the incipient stage of the disease produced by causes out of sight, must be investigated, and the cause of it ascertained before we can render a true verdict.

But in these investigations, we not only need discriminating experiments, but we want a persevering energy, that never tires; for no subject, like agriculture, has so many, and so difficult problems to solve. Wind and water are always in motion. Various gases liberated from decaying vegetables, are always, in warm weather, floating in the atmosphere, and watery vapors combine with them, and when condensed by cold, may fall in dew on the leaves of plants, and either act as nutriment or poison, according to their quality. If brought to the earth by rains, they may, in addition to liberated gases, furnish food or poison to the roots.

Here, brother farmers, is the field of investigation set before us by Infinite Wisdom; and the same Wisdom has given us powers of mind sufficient to penetrate every mystery necessary for us to explore, in order to render earth a garden of vegetable life and beauty, whose trees and plants shall bow themselves under the weight of the most abundant and the best of fruit.

JOSEPH H. JENNE.

Peru, Me., *Dec.* 1848.

From the Plough, Loom, and Anvil.

SOME SUGGESTIONS ON THE ACTION OF PLASTER OF PARIS.

The following communication from Prof. Norton, of the school of chemistry applied to agriculture, is the best explanation we have seen of the action of gypsum, and of the reason why it acts powerfully on some soils, and is inert on others. Still, it seems somewhat wonderful that so small a *dust of it*, — half a bushel, in some cases, to an acre — scattered over

growing clover, in the spring, should so soon descend, and become incorporated with, and act upon, the soil; but so, it seems, it does.

NEW HAVEN, *Dec.* 11, 1848.

Hon. J. S. SKINNER.

Dear Sir: I have read with interest the various articles in the December number of your valuable journal; and desire to remark briefly upon one paragraph relative to the effect of plaster of Paris, or gypsum. This paragraph is upon the 369th page, and the essential part of it as follows: "Mr. Stabler states that land which had before been insensible to the action of plaster of Paris, when raised by clover, otherwise, to a certain degree of fertility, becomes alive to the influence of that cheapest of all fertilizers, where it will act at all; and this, like other facts and considerations that might be adduced, would seem to show that its action is *not due to its attraction of fertilizing powers from the atmosphere.*"

The idea that plaster of Paris acted wholly by the absorption of ammonia from the atmosphere, originated with the great German chemist, Liebig; and the sanction of his name has given it general credence. I believe in this matter, as in several others relating to agricultural science, he has erred through a lack of practical knowledge, and perhaps through the strong temptation to promulgate beautiful theories.

I think that experience points more plainly to at least a decided modification of his opinions. The instance above cited is one which the ammonia theory fails to explain. I at this moment recall one of a yet more decided character. I know of several localities, where, in adjoining fields, plaster exerts on the one a very marked influence, and on the other is of no use whatever. These two kinds of land are uniformly treated in the same manner, and always have been; yet this difference remains. There is no doubt but ammoniacal manures would do good on both of these soils; and yet, on one of them, the use of plaster never repays the outlay. Clearly we must look for some new explanation. This is to be found in the chemical composition of plaster. It is composed of lime and sulphuric acid, and is known to chemists as sulphate of lime. Now, sulphuric acid is well known to be a powerful manure on many soils, and it is unnecessary to praise lime. In the case of the two adjoining fields above mentioned, the soil of one was formed from a species of shale, which contained scarcely a trace of either of these substances; and that of the other from a rock which had a pretty good supply of both. The inference in such a case is irresistible. We find the soil known to be without the constituents of plaster benefited, while the other remains unchanged. Now ammonia should produce the same effect on both, if to supply it were the use of plaster. We must, therefore, conclude that the mineral constituents of the manure were of primary importance here.

Mr. Stabler's case is rather different. Here the soil must be brought up to a certain degree of fertility, and then plaster acts. This will not seem strange when we consider the composition of the soil; that ten or twelve mineral ingredients are requisite to fertility. Plaster only contains two of these; and if others besides be wanting, the addition of it will of course not supply them. But when they are added by green cropping or otherwise, the gypsum tells at once.

In all land, then, where plaster produces no decided effect, we may expect to find the constituents of that manure already present.

These are but hints upon a subject which would require very many pages for its full discussion.

Plaster undoubtedly has a strong tendency to the absorption of ammonia, and probably is often of benefit in that way; so that I would not so much condemn Liebig's theory, as simply unite another with it; these two causes of benefit to the soil affording an explanation to almost every case of perplexity. Much is yet to be learned on this subject; but the above view will, I think, be found correct in its main features, as well as practical in its applications.

I enclose a copy of the last circular issued from our laboratory, as I cannot remember having sent you one before. We have a fine class now of ten students, and our numbers are increasing; but not so fast as the demand for instruction in agricultural science. We shall not be able to supply it in a long period, even if our numbers are more than doubled. I am, sir, yours, respectfully,

JOHN P. NORTON.

AGRICULTURAL CHEMISTRY.

No manure can be taken up by the roots of plants, unless water is present; and water or its elements exist in all the products of vegetation. The germination of seeds does not take place without the presence of air or oxygen gas.

Plants are found by analysis to consist principally of charcoal and aeriform matter. They give out by distillation volatile compounds, the elements of which are pure air, coally matter, inflammable air, and azote, or the elastic substance which forms a part of the atmosphere, and which is capable of supporting combustion. These elements they gain either by their leaves from the air, or by their roots from the soil.

All manures from organized substances contain the principles of vegetable matter, which, during putrefaction, are rendered either soluble in water or aeriform; and in these states, they are capable of being assimilated to the vegetable organs. No one principle affords the pabulum of vegetable life; it is neither charcoal, nor hydrogen, nor azote, nor oxygen, alone, but all of them together, in various states and various combinations.

Plants require only a certain quantity of manure, and excess may be detrimental, and cannot be useful.

Slaked lime was used by the Romans for manuring the soil in which fruit-trees grew. This we are informed by Pliny.

Nothing is more wanting to agriculture than experiments in which all the circumstances are minutely and scientifically detailed. This art will advance with rapidity in proportion as it becomes exact in its methods.

Discoveries made in the cultivation of the earth are not merely for the time and country in which they are developed, but they may be considered as extending to future ages, and as ultimately tending to benefit the human race; as affording subsistence for generations yet to come; as multiplying life, but likewise providing for its enjoyment.

Potatoes in general afford from one fifth to one seventh of their weight of dry starch.

One fourth part of the weight of the potato, at least, may be considered as nutritive matter.

The principal consumption of the carbonic acid in the atmosphere, seems to be in affording nourishment to plants; and some of them appear to be supplied with carbon chiefly from this source. Carbonic acid gas is formed during fermentation, combustion, putrefaction, and a number of operations taking place upon the surface of the earth; and there is no other process known in nature by which it can be destroyed but by vegetation.

It is usual to carry straw, that can be employed for no other purpose, to the dunghill, to ferment and decompose; but it is worth experiment, whether it may not be more economically applied when chopped small by a proper machine, and kept dry until it is ploughed in for the use of a crop. In this case, though it would decompose much more slowly, and

produce less effect at first, yet its influence would be much more lasting.

Manures from animal substances in general require no *chemical* preparation to fit them for the soil. The great object of the farmer is to blend them with earthy constituents in a proper state of division, and to prevent their too rapid decomposition. — *Selected.*

ORGANIC MATTER IN SOILS.

If we take a small quantity of soil, and heat it in a crucible, or on the blade of a caseknife, red hot, it immediately turns black, like wood coal, or charred wood. If the heat be continued, and the soil stirred in the crucible, it soon loses its dark color, and takes that of the earth operated on, like burnt brick. The matter consumed by fire is the remains of vegetable and animal substances in the soil, which are called *organic* matter, for they were produced through the agency of vitality and *organization.*

All organic combustible matter consists of four simple elementary bodies, which are variously combined in vegetable and animal mould. That part of plants, forest trees, and animals, which will make *coal* when properly burnt, is called *carbon.* It constitutes not far from one half of the dry weight of all plants and animals, exclusive of the bones of the latter and the earths that form ash in the former; the percentage of carbon in animals is less than in vegetables. It is carbon in muck and mould which renders them so dark colored. The two simple elements *oxygen* and *hydrogen,* that combine in the proportion of eight pounds of the former to one pound of the latter, and thereby make nine pounds of pure water, exist pretty largely in the organic matter of soils. The constituent elements of water and carbon, together form the main bulk, substance, and weight of all vegetables, and on an average more than eighty per cent. of all animals, beside their bones or shells. The other of the four elements in mould, and of course in once living beings, that slowly decay to form it, is called *nitrogen.* The air we breathe contains seventy-nine parts of this gas to twenty-one of oxygen. One hundred pounds of wheat straw contain only one third pound of organized nitrogen; the same weight of wheat, about two and a half pounds.

The transition of dead plants, that fall to the ground, is technically called *eremacausis,* a hard Greek compound word, which means "slow combustion," because, chemically speaking, slow rotting is not unlike slow burning. In this natural process of decay, the elements of water, *i. e.,* oxygen and hydrogen, fly off faster than carbon. Hence green plants and wood of a light color form brown mould. Like rotted manure, this substance is very variable in its agricultural value. This depends in no small degree on the quantity of ammonia, (a compound of nitrogen and hydrogen,) and of earthy salts which the mould possesses. Clean pine wood will form mould, but as it yields very little *ash* or organized *nitrogen,* its mould is of far less value than that made of peas, clover, oats, and corn. There is a great difference in vegetable mould, which the practical farmer should closely study. One variety may be extremely fertile; another, remarkably sterile. The leaves of forest trees form that which is of a medium quality. They should be gathered and treated as most of our readers know how.

We find a good many worn or washed plantations in our travels, that lack organic matter in the soil. The point we are studying in this, to us new climate and strange land, is, How shall the agriculturist cover those naked fields with a rich mould, drawing the elements thereof from the atmosphere and the subsoil, which appertain alike to each acre? Take good care of the surface water; plough deep; subsoil; try peas and rye turned into the earth; and all crops that will serve to keep cattle, sheep, and swine, whose daily manure will give new organized matter, drawn from the air. On thin, poor soils, deep-rooted plants and trees will live, whilst those whose roots, like wheat, descend but a few inches, pine and die. The former find their necessary potash, soda, lime, magnesia, phosphorus, sulphur, chlorine, iron, and soluble silica, deep in the earth, which make the skeleton of a plant, and without which no carbon, oxygen, hydrogen, and nitrogen can be transformed and organized into vegetable tissues, however largely they may abound in simple mould and soil, or in the surrounding atmosphere. — *Southern Cultivator.*

For the New England Farmer.

AGRICULTURAL EDUCATION.

Mr. Editor: A great deal has been said and written, yet but little done, in regard to schools or seminaries of learning for fitting boys and young men, by education and practical knowledge, for the business of farming. Every intelligent cultivator acknowledges the great aid which science gives to agriculture, and the variety and extent of the sciences that are made subservient to this profession; yet he is aware that the best practical knowledge is equally important.

Now, the important question is, how shall the young man learn the science and art of farming, or how shall the parent educate his boy properly for this calling? Schools have been established for these purposes on various plans, and under favorable and unfavorable auspices. Some have flourished, others have faded.

This subject has been agitated in several of the state legislatures, and in some, measures have been taken to encourage agricultural education; but as it is a novel subject, it has been difficult to agree on any plan, so that but very little has been done by legislative aid. As it is of the highest importance, and a subject in which the whole community have a deep interest, it is hoped that it will be investigated by our legislative assemblies, and by the correspondents of agricultural journals, until some effective measures are taken to educate and fit young men for agricultural pursuits, as well as for other professions.

A FRIEND TO AGRICULTURE.

Editorial Remarks.

Our columns are open for discussion and the investigation of this subject, and we should be happy to hear opinions on the best plans for agricultural education, and the importance of our legislatures taking some measures to promote so useful an object.

LUCERN, OR FRENCH CLOVER.

A number of experiments have been made in cultivating lucern in this country, but not with sufficient success to lead to its general use. It is very difficult to suit as to soil, and it requires much care and attention, the first season, in weeding, stirring the soil, &c. We find that those who have tried it neglect its culture, which shows that it is not well adapted to our climate, or we have but few soils that suit it. It will doubtless succeed better in the Middle States and other mild climates, as it occasionally winter-kills here. We copy the following from Colman's

account of French agriculture, in his late publication.

Lucern. — Lucern is cultivated very extensively in France, and, indeed, may be considered as their great dependence for green fodder. It is a general opinion that no plant will, in this respect, yield a greater return. Indian corn will yield more green food, but a crop of lucern may be got much earlier. Three things are important in the culture of it; first, that the soil on which it is sown should be rich; second, that it should be deep, good in the subsoil as in the surface soil; and third, that it should be kept clean from weeds. On my visit to an admirably managed farm, about twenty miles from Paris, where every thing indicated the most exact care and attention, and which might almost be cited as a model farm, the farmer informed me that his lucern, which he cultivated largely, was usually cut three times, and gave him at the rate of fourteen tons to an hectare, made into hay. A French hectare is about two and a half acres, and this would be, therefore, a yield of more than five and a half tons to an acre. A dry season is particularly unfavorable to it. It requires a rich, but suffers from a wet soil.

Lucern is sometimes sown among wheat or barley; but the most certain mode of securing it against weeds, is to plant it in narrow drills, and keep it clean by the hoe for a time, until it becomes well established. About eight pounds of seed — though this is deemed a large allowance — are sown to an acre. It will bear cutting three times a year, and will endure in the ground eight to ten years. It does not come to perfection the first year; and the circumstance of its being ordinarily continued in the ground for a term of years forms an objection to its culture, with those who wish to pursue a regular rotation of crops. Gypsum is applied to lucern with the same success as to clover; and the best farmers advise to harrow it in the spring, and, indeed, after each cutting, excepting the last cutting in the autumn.

CHOOSING A HORSE.

There is much pleasure and profit in the service of a good horse, but very little of either in a bad one. There are many mean horses that make a good appearance when taken from the hands of a jockey. In purchasing a horse, then, trust not to the seller's words; let your own judgment, or that of a friend, be chiefly relied on. See that he has good fore feet and joints, and that he stands well on his legs. See that his fore teeth shut even; for many horses have the under jaw the shortest; these will grow poor at grass. See that his hair is short and fine; for this denotes a good horse. Observe his eyes, that they are clear and free from blemish — that he is not moon-eyed or white-eyed; for such are apt to start in the night. A large, hazel-colored eye is the best.

Look at his knee; see that the hair or skin is not broke, for this denotes a stumbler. Take care that his wind is good; for a trial of this, let him be fed on good hay for twenty-four hours, take him to water, and let him drink his fill, placing him with his head the lowest; if then he will breathe free, there is no danger. See that his countenance is bright and cheerful; this is an excellent mirror to discover his goodness in. If his nostrils are broad, it is a sign that he is well winded; narrow nostrils, the contrary.

See that his spirits are good, but that he is gentle and easily governed; not inclined to start. In travelling, mind that he lifts his feet neither too high nor too low; that he does not interfere or overreach, and that he carries his hind legs the widest. See that he is well-ribbed back, and not high-boned. The size may be determined by the purchaser. Age from five to ten is the best. There are many tricks practised by jockeys to make horses appear young, but it is not consistent with the size of my book to detect them; all I would say is, that horse's teeth, when young, are wide, white, and even; the inside of their mouths is fleshy, and their lips hard and firm. On the contrary, the mouth of an old horse is lean above and below; the lips are soft and easily turned up; their teeth grow longer, narrower, and of a yellow color. — *Selected.*

THE HORSE'S EYE.

I will now inform you how, for certain, you may know whether a horse has a strong and good eye, or a weak eye, and likely to go blind. People in general turn a horse's head to a bright light to examine his eyes. You can know very little, by this method, what sort of an eye the horse has, unless it be a very defective one. You must examine the eye first, when the horse stands with his head to the manger. Look carefully at the pupil of the eye, in the horse; it is of an oblong form; carry the size of the pupil in your mind, then turn the horse about, bring him to a bright light, and if, in the bright light, the pupil of the eye contracts, and appears much smaller than it was in the darker light, then you may be sure the horse has a strong, good eye; but provided the pupil remains nearly of the same size as it appeared in the darker light, the horse has a weak eye; therefore have nothing to do with him. — *Old Almanac.*

GRAFTING THE APPLE INTO THE PEAR.

Has any one in this section ever tried the experiment of grafting the apple into the pear? A friend of ours informs us that he once met with a tree of this kind in the gardens of a friend in England, and that the apples had a peculiar flavor, somewhat like a pear; and whether the flavor was peculiar to the variety of apples, or whether it was occasioned by the influence of the stock, he was not able to say.

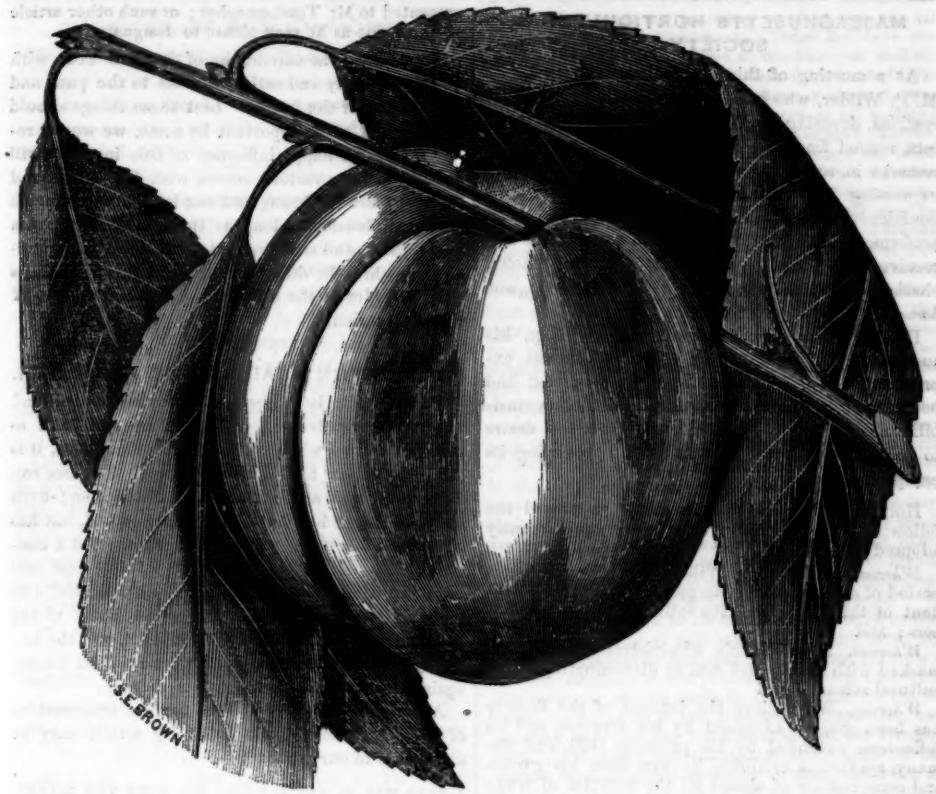
As a general thing, a pear stock is more valuable to engraft pears upon than apples; but as an experiment in ascertaining what influence such a stock may have upon the graft, it may be interesting.

The pear, unless attacked by the modern disease called the blight, will live longer than the apple-tree generally does; and it is possible that the apple graft, if the union is not too uncongenial, may be the means of prolonging the duration of the variety. Little, or indeed nothing, is known in regard to that at present. — *Maine Farmer.*

Remarks by the Editor of the New England Farmer.

We never saw or heard of the apple growing on the pear, until we made the experiment incidentally last spring. In grafting and planting out in the nursery a lot of apple stocks, among which were a number of pear stocks, some of the latter were grafted with apple scions, and set out without being recognized as pears.

On examining them in the summer, we noticed that six or eight scions had been set in pear stocks, which was indicated by suckers from the root. The scions on the pear were nearly as large, on an average, as those on the apple. We let them remain for experiment. On a part of them, we left a pear sucker to grow with the apple scion, to save the stock in case the apple should fail.



THE PEACH.

The peach is the most luscious of all fruits, and it is adapted to extensive culture. It is raised to a moderate extent in the Northern and Southern States, and it seems admirably adapted to the middle region of our country, where there are produced on some single farms ten to twenty thousand bushels a year.

In the north, this fruit is rather uncertain, not so much from the destruction of the trees by severe winters, — though this occurs occasionally, — as from the loss of buds; and these would not be so liable to be destroyed, were our winters of even temperature; but in the coldest months in the year, we sometimes have a spring-like day, or a week of mild weather, which starts the buds, and renders them very susceptible of injury from cold that suddenly ensues.

The interesting communication of Gen. Newhall, on another page, shows how to obviate this difficulty, in a small way; and by the means he recommends, the peach culture may be extended one hundred and fifty miles north of its present limit. We ought also to make improvements so as to render the peach culture, on an extensive scale, profitable, not only in this section, but still farther north.

For many years, most of the peach stones planted in this region, and farther north, have been raised in the south. Many trees, set in New England, are raised in a more southern clime, and with a luxuriant growth that renders them tender; and in addition to these disadvantages, most of the scions used in budding have been from kinds foreign to this climate.

Some say, all these things make no difference; but those who have bought knowledge dearly in the school of experience, do not confirm such statement. It might as well be said that an Ethiopian is as well prepared to endure the rigorous cold of Greenland as a native of that frozen region, as that southern trees, and those that have originated in a mild, foreign clime, are adapted to the north.

As the peach has travelled, from a climate of perpetual verdure, thus far north, generally enduring the changeable winters and occasionally severe cold of the Middle States, and often enduring the severe test of a northern freeze, several degrees below zero, we have reason to suppose, that, by good management, it will bear extension still farther north. At another time we may continue the subject. Our readers will be pleased to have the opinions of others also.

Spare minutes are the gold dust of time; and Young was writing a true, as well as a striking line, when he affirmed that, "Sands made the mountain, and moments made the year." Of all the portions of our life, the spare minutes are the most faithful in good or evil. They are gaps through which temptations find the easiest access to the garden.

MASSACHUSETTS HORTICULTURAL SOCIETY.

At a meeting of this association, January 6, Col. M. P. Wilder, who had long presided over its deliberations, devoting much time and talent to its interests, retired from the chair, after a few appropriate remarks in regard to the prosperity of the society, expressing his grateful acknowledgments for the confidence and respect that had been shown in his preferment, and the kindness and support he had received from his associates, for whom he should cherish an affection next to that for *family and home.*

He then introduced Samuel Walker, Esq., his successor, who made a brief *inaugural* address, expressing his gratitude for the distinction that had been shown him, his consciousness of the responsibilities and duties of the office, and his hearty desire to coöperate with the association in promoting its prosperity.

Hon. B. V. French, Vice President, presented the following resolutions, which were unanimously adopted: —

Whereas, Marshall P. Wilder, Esq., has during a period of eight years discharged the duties of President of this Society to the satisfaction of its members; and

Whereas, Mr. Wilder's administration has been marked with energy and zeal in disseminating horticultural science; and

Whereas, We believe the interest of the Society has been greatly advanced by his services, and its influences extended by his practical skill, and the many specimens exhibited by him from his garden and conservatory of almost all the varieties of fruits and flowers; and

Whereas, We also fully believe, that the public, as well as the members of this Society, are indebted to him for his practical and successful labors; — Therefore,

Voted, That the thanks of the Society be tendered to Marshall P. Wilder, Esq. for his services during the period he was President thereof; and also

Voted, That a committee of three be appointed by the Chair to purchase a piece of plate not exceeding in value *one hundred and fifty dollars*, and cause a suitable inscription to be placed thereon, and to present the same, with the above vote of thanks, to Marshall P. Wilder, in behalf of the Society, as a tribute of the regard and esteem of its members.

Mr. C. M. Hovey presented the following vote, which was passed unanimously: —

Voted, That the Society's gold medal be presented to Gen. H. A. S. Dearborn, the first President of the Massachusetts Horticultural Society, for the essential services he rendered to the science of horticulture, and the interest of the Society, during the period he presided over its affairs.

Dr. E. Wight proposed the following resolutions, which were unanimously adopted: —

Resolved, That this Society hold in high estimation the eminent attainments of James E. Teschemacher, Esq., in the various departments of literature and science.

Resolved, That the thanks of this Society be tendered to Mr. Teschemacher for his valuable services as Corresponding Secretary for many years, and as Chairman of the Committee of Publication.

Resolved, That as a token of approbation and respect, and in consideration of these services, that a piece of silver plate, of the value of *fifty dollars*, be presented to Mr. Teschemacher; or such other article of like value as he may please to designate.

Thus closed the ceremonies of the New Year, with great unanimity and satisfaction as to the past, and high hopes for the future. Lest these things should be regarded as unimportant by some, we would remark, that the happy influence of this institute will aid in adorning various scenes with fine fruits and beautiful flowers throughout our land, in monuments that shall flourish as long as the sun shall give its genial glow, and skill and enterprise inspirit the cultivator, while the doings of many august assemblies shall moulder in the dust, or sleep on the shelves of the antiquarian.

PROTECTION AGAINST THE BEE MOTH.

The bee moth is too formidable for bees to contend with, as it spreads out its web and protects itself as it advances, and when it attacks a feeble swarm, it is sure destruction to this useful insect. The bee can drive man and animals of every description; even the noble horse has not only been conquered, but has sometimes fallen a victim to their rage. Yet a contemptible worm takes possession of the neat and beautiful hive, protects himself like a skilful and powerful warrior, despoils the sweet home of the bee, and converts it into a place of filth, and the unhappy possessor retires in disgust from an enemy against whom he has no means of defence.

As the winter is a good time for the construction of hives and houses, the following article may be acceptable to our readers: —

A SURE WAY TO PROTECT THE BEE FROM THE MILLER.

Messrs. Editors: I was this summer witness, in a western state, to a contrivance for protecting the bee from the miller, which was novel to me, and, indeed, to the contriver himself, until it struck his mind in the beginning of the season.

Thinking it may be a novelty to all your readers, I will give a description of it.

The contrivance I witnessed was this: "A bee-house eight feet square and eight feet high, surmounted by a roof running up into a spire, with a weathercock. In the middle of each of the four sides of the house was a close fitting door of sufficient width and height to allow persons to enter with ease standing erect. Within was a series of three shelves or platforms, one over the other, four feet square, supported by corner posts reaching from the ground to the top of the walls, and mortised perhaps into cross pieces from the top of the walls. These platforms would accommodate from twelve to sixteen common hives. *In the daytime, all these doors were fastened open; but as soon as the bees were in at evening, they were closed.* Early in the morning, they were again thrown open, and the little prisoner let forth to his toil. In the winter, the doors are to be kept locked, except when access is wanted to the hive."

By the means above stated, the miller was kept completely from the hives. He would often be seen coming round in the evening, and knocking in vain for admittance. One morning, indeed, I believe a few millers were found in the house, when the doors had been closed at too late an hour in the evening previous. But they had evidently found themselves entirely in the dark, and had done no mischief. It is obvious that the house, with its internal arrangement, could be of any size that common sense may dictate. — *N. Y. Farmer.*

NOTICES OF PUBLICATIONS.

HAYWARD'S GAZETTEER OF MASSACHUSETTS. We consider this the most valuable work of the kind that has ever been published. It is not merely a gazetteer in the usual dry, brief style, but a volume of four hundred and fifty pages is devoted solely to this state, which affords the opportunity of introducing history and statistics, and giving various details that are interesting, not only to citizens of this state, but to people throughout the country, particularly from the prominent rank which Massachusetts holds in the history of our progress as a nation. The work is enlivened with numerous instructive anecdotes. The eminent author is extensively known. Published by Messrs. John P. Jewett & Co., 23 Cornhill. We are pleased to learn that these enterprising booksellers are publishing a separate work of this kind for each state in New England.

OUTLINES OF IMPROVEMENTS IN VIRGINIA, giving an account of numerous works, such as roads, turnpikes, &c., in operation, progress, or surveyed, with a beautiful map of the state. Forwarded by the politeness of T. H. Dewitt, Esq. It shows that a spirit of improvement is pervading that state, which is leading to increased facilities of communication with every section, which is a sure precursor to agricultural improvements. By Claudius Crozet, late State Engineer.

TRANSACTIONS OF AGRICULTURAL SOCIETIES. — We have received the doings of the Worcester, Essex, and Plymouth Agricultural Societies, each in pamphlet form. The plan of late, (and of the Essex Society for a long time,) of publishing the transactions in a permanent form, is excellent, as such matter is worthy of preservation, and should be in convenient form for reference. These works contain the annual address, reports of committees, statements of applicants for premiums, essays, and other useful matter.

REPORT OF THE FIRST EXHIBITION OF THE WORCESTER MECHANICS' ASSOCIATION. — This work indicates that this institution is large and flourishing, and that their exhibition was extensive and excellent. We understood that it was attended by vast numbers, and gave excellent satisfaction.

HORTICULTURAL REPORT OF THE TWENTY-FIRST ANNUAL FAIR OF THE AMERICAN INSTITUTE, by Thomas Bridgeman and Peter R. Mead, superintendents. It contains various matters interesting to the horticulturist and pomologist.

PROGRESS OF INDUSTRY AND HARMONY OF LABOR.

This, then, is the grand moral lesson of the hour — THE PROGRESS OF INDUSTRY AND THE HARMONY OF LABOR. That PROGRESS is already proved and illustrated when this society remembers, on the one hand, what its fathers saw, and what they did, and on the other, casts its eye on the exhibitions, and gathers up the instructions, of this day. That HARMONY, in interest and growth, in sentiment and purpose, is substantiated by this present re-union of all the sons of labor at this annual civic triumph. These exhibitions are teaching us that we are all producers and all consumers. These holidays are proving to us that the circle of all business and all pursuits is a charmed circle, and that a single jar any where spreads discord and disaster through the whole. There is no such thing here as an isolated interest, nor any such man as an isolated laborer. In the formation and growth of communities, labor divides and subdivides itself — to the end, not that this pursuit or that may become easier or more honorable than the other, but that each and all may be the more profitable and the more productive. Would you say that the divisions and subdivisions of human invention in the machinery we have witnessed to-day, with all their nice and varied improvements from year to year, involve any encroachment on the rights of labor? Neither with any more truth would you maintain that any fixed department of human pursuit, whether of the hand or the head, in the field or the shop, in the counting-room or the office, could be stricken out without imparting disturbance to the whole. There is one harmonious idea running through the whole scheme and the whole fabric of society, the whole theory and the whole practice of the world — and that is, increased profit and increased production, — greater capacity for producing, sustaining, educating, advancing the race. The small and despised stream which flows through the heart of this city, is a wiser witness and a more liberal philosopher than we. What growth, and upbuilding, and expansion of industry has it not witnessed! It very early beckoned to its banks a scattered, humble, dependent colony of mechanics. It kept them up through prosperous and adverse fortune, till now a score of smoking shafts penetrate the sky, and from the reservoir on the north to its southern outlet, its banks are vocal with the hammer and the axe, the whirling wire and the building machine, the forming plough and the noisy plane, the fierce glow of the furnace and the heavy working of iron, the whiz of the car-shop and the crack of the pistol — while a host of children whom no man can number, look towards it in the morning and in the evening for their daily bread. If I were to call upon this productive rivulet for its testimony, what, think you, it would be? Why, to be sure, that the wire-maker and the machine-builder combined to supply the cotton and woollen mill — that the plough-maker furnished his wares for the whole agricultural world — that the iron man, with his five or six scores of hands, was at work for every body — and so on to the end of the chapter, concluding with this essential and impressive fact, that as this community has increased from year to year, new churches and new schools, a little more counsel and a little more medicine, yet other stores for wholesale and retail, more boarding-houses, and shoe-shops, and tailors and hatters, and grocers, and dress-makers, were demanded and came in upon us, till the town has become, what we behold it to-day — all helping one another, AND THE FARMER FEEDING THE WHOLE. I hold him to be a suspicious friend who would scatter the seeds of dissension where Providence and natural causes have established a coincidence of interest; and against his testimony I place that ever speaking and benevolent stream, as it carries down to the waters of the Blackstone, to be diffused over yet larger communities between this and the Bay of the Narragansetts, that large, universal truth of American life — THE HARMONY OF LABOR. — *Bullock's Ad. before Worcester Ag. Society.*

Draining low lands will contribute to promote health and profit. Generally speaking, our wet and marshy lands are the richest in organic matters, and become the most profitable to the owner, when thoroughly drained. — *Buel's Far. Com.*

Domestic Department

Preservation of Honey. — When honey is strained from the comb, and exposed to the air, it becomes *candied*, as it is called, in a few months, a part granulating and forming sugar. This process injures its quality very much. To prevent this unfavorable change, put strained honey into bottles, filling them full, then cork them tight, and set them in a dark, cool place.

Honey in the comb, in a compact form, as it is in small drawers, boxes, &c., adapted to improved hives, will keep in good condition far longer than it will when separated from the comb and exposed, as is often the case.

We have had honey so far injured by being candied as to be unfit for use, and we have given it to bees. They readily consumed all the liquid part, leaving the little round grains of sugar.

To make Yeast. — To two middling-sized boiled potatoes, add a pint of boiling water and two tablespoonfuls of brown sugar. One pint of hot water should be applied to every half pint of the compound. Hot water is better in warm weather. This yeast, being made without flour, will keep longer, and is said to be much better, than any previously in use.

Rich Buckwheat Cakes. — Take two pints of fresh buckwheat flour and half a pint of sifted corn meal, mix with milk to a thin batter, add one tablespoonful of fine salt, and two teaspoonfuls of brewer's yeast, or an equivalent of other yeast. Leave the whole in a stone jar, in a warm place, to rise over night. In the morning, add a teaspoonful of saleratus dissolved in a tablespoonful of hot water, and then bake immediately.

Pickling Cabbages. — Quarter the firm head of the cabbage; put the parts in a keg, sprinkle on them a good quantity of salt, and let them remain five or six days. To a gallon of vinegar put an ounce of mace, and one of pepper-corns and cinnamon. Cloves and allspice may be added, but they darken the color of the cabbage. Heat the vinegar scalding hot, and turn it while hot on the cabbage, the salt remaining. It is necessary to turn the vinegar from the cabbage several times, and, scalding it, return it again while hot. This makes them tender. Purple cabbages, the heads not large, but fine and firm, are best for pickling. — *Albany Cultivator.*

Bean Soup. — Put two quarts of dried white beans into soak the night before you make the soup, which should be put on as early in the day as possible. Take five pounds of the lean of fresh beef — the coarse pieces will do. Cut them up, and put them into your soup pot with the bones belonging to them, (which should be broken to pieces,) and a pound of bacon cut very small. If you have the remains of a piece of beef that has been roasted the day before, and so much underdone that the juices remain in it, you may put it into the pot, and its bones along with it. Season the meat with pepper and salt, and pour on it six quarts of water. As soon as it boils, take off the scum, and put in the beans, having first drained them, and a head of celery, cut small, or a tablespoonful of pounded celery seed. Boil it slowly till the meat is done to shreds, and the beans all dissolved. Then strain it through a colander into the tureen, and put into it small squares of toasted bread, with the crust cut off. Some prefer it with the beans boiled soft, but not quite dissolved. In this case, do not strain it; but take out the meat and bones with a fork.

Effects of Habit on the Infant Mind. — I trust every thing to habit; habit, upon which, in all ages, the lawgiver, as well as the schoolmaster, has mainly placed his reliance; habit, which makes every thing easy, and casts all difficulties upon the deviation from the wonted course. Make sobriety a habit, and intemperance will be hateful and hard; make prudence a habit, and reckless profligacy will be as contrary to the nature of the child grown an adult, as the most atrocious crimes are to any of your lordships. Give a child the habit of sacredly regarding the truth, of carefully respecting the property of others, of scrupulously abstaining from all acts of improvidence which can involve him in distress, and he will just as likely think of rushing into an element in which he cannot breathe, as of lying, or cheating, or stealing. — *Lord Brougham.*

Boys' Department.

Maxims of Washington. — Every action in company ought to be with some sign of respect to those present.

Speak not when others speak, sit not when others stand, and walk not when others stop.

Be no flatterer; neither play with any one that delights not to be played with.

Let your countenance be pleasant, but in serious matters somewhat grave.

Show not yourself glad at the misfortune of another, though he were your enemy.

In writing or speaking, give to every person his due title, according to his degree, and the custom of the place.

Strive not with your superiors in argument, but always submit your judgment to others with modesty.

Undertake not to teach your equal in the art he himself professes; it savors of arrogancy.

Being to advise or reprimand any one, consider whether it ought to be in public or private, presently or at some other time, also in what terms to do it; and in reproving, show no signs of choler, but do it with sweetness and mildness.

Wherein you reprove another, be unblamable yourself; for example is more prevailing than precept.

Be not hasty to believe flying reports, to the disparagement of any one.

In your apparel be modest, and endeavor to accommodate nature more than procure admiration. Keep to the fashion of your equals, such as are civil and orderly, with respect to time and place.

Associate yourself with men of good quality, if you esteem your own reputation; for it is better to be alone than in bad company.

Utter not base and frivolous things among grown and learned men; nor very difficult questions or subjects among the ignorant, or things hard to be believed.

Be not forward, but friendly and courteous, the

first to salute, hear, and answer; and be not pensive when it is time to converse.

Gaze not on the marks or blemishes of others, and ask not how they came. What you may speak in secret to your friend, deliver not before others.

Think before you speak; pronounce not imperfectly, nor bring out your words too hastily, but orderly and distinctly.

Treat with men at fit times about business, and whisper not in the company of others.

When you speak of God or his attributes, let it be seriously, in reverence and honor, and obey your natural parents.

Health.

Exercise in the Open Air. — Moderate exercise in the open air, for the purpose of assisting the various secretions, is another essential requisite for the production and maintenance of good health. None can neglect this rule with impunity; but a sedentary life is certainly not so detrimental to those who live on vegetable diet. Unless sufficient oxygen be supplied to the lungs by daily exercise in the open air, the products of decomposition will fail to be removed in sufficient quantity for the maintenance of a healthy state; and the assimilation of new matter is impeded. Without exercise, also, the contractile power of the heart and large arteries is feebly exerted; and, though sufficient to carry the blood to the ultimate tissue, it is nevertheless not strong enough to carry it through with the rapidity necessary for health. The ultimate tissue being thus filled faster than it is emptied, congestion takes place in those delicate and important vessels which compose it, as well as in the large veins, the office of which is to convey the blood from the tissue to the heart. One of the chief conditions of the body, in that general ill state of health usually denominated "indigestion," is congestion of the blood in the ultimate tissue of our organs — the brain, the lungs, the spinal marrow, the stomach, the ganglionic system, the liver, bowels, and all the organs concerned in the nutrition of the body. When the system, therefore, undebilitated by disease, will admit a good supply of oxygen by muscular exercise, it is the best means of diminishing the amount of venous blood, and (in conjunction with a legitimate supply of proper food) of increasing the amount of arterial blood; and in proportion as the latter preponderates over the former, shall we possess health and muscular strength, as well as elasticity of mind. — *Smith's Fruits and Farinacea.*

Useful to Rheumatic Invalids. — Persons afflicted with that distressing disorder, the rheumatism, will be glad to learn that it may be cured by a very simple remedy, which I have found to be very efficacious. Having had two very severe attacks of this painful malady, at the sudden commencement of cold weather, to which this country is so subject, and after using liniments and various kinds of medicines recommended by physicians, to no purpose, I found by drinking a strong decoction of savin, for a few days, it produced a speedy cure each time. Savin is one of the evergreens, and resembles in appearance a shade between spruce and balsam, and of a dark-green color. This cure is confidently recommended. — *Selected.*

Remedy for Burns and Scalds. — From the number of accidents which have lately taken place, and by which several persons have been so dreadfully burned as to cause death, we recommend the following simple remedy, by which the pain from either a burn or scald is instantly relieved. Let clarified honey be applied on a linen rag, and in one moment the pain will cease. This remedy has been tried several times, and it always relieved the moment the honey was applied. — *Newark Times.*

Sore Throat. — We have known several instances in which this distressing complaint, even in its worst stages, has been immediately alleviated, and speedily cured by the following remedy. Mix a pennyworth of powdered camphor with a wine-glass full of brandy; pour a small quantity on a lump of sugar, and allow it to dissolve in the mouth every hour. The third or fourth time generally enables the patient to swallow with ease. — *Selected.*

Mechanics' Department, Arts, &c.

Promptness. — In every kind of business promptness is important. The farmer who neglects to secure his grain or hay, when it is well prepared and is exposed to the weather, may lose his crop by one day's neglect. But the mechanic who neglects a piece of work a few days, or even a few weeks, beyond the promised time, may find no material effect on his interest in that single case; yet the customer who has been disappointed a few times, looks for another workman who is more prompt; and little neglects, as they may be considered at first, accumulate in time, and form a prominent characteristic of him who practises them; and finally they make all the difference between complete success and failure in business — between a competency and independence, and want and embarrassment; and the evil results to the mechanic, for want of promptness, are as serious as those to the farmer, when by neglect he suddenly loses his crops.

As the mechanic depends on others for business, his success depends mainly on promptness, and every delay in fulfilling his engagement with a customer has a future bearing, and though it may apparently be excused, it will not be forgotten, but will be an important consideration in future operations.

The mechanic who delays completing his work according to agreement, sets an example of neglect which his customer may practise upon him in regard to payment, and thus he will suffer from the evil influence of his own conduct.

In conclusion, on this subject we will suggest, for consideration, whether there are not some, or even many, mechanics who neglect to perform their promises as to the completion of work. We are sorry to say that delays are common. A few hours past the time may seem a trifle; but it may affect the customer ten times more than the value of the article, and the effect will finally react on the business of him that is tardy.

By diligence, and care in promising, a mechanic may be prompt, and then he has pleasure as well as profit in his business and labor. But with negligence his business is vexatious and unprofitable, and he

works with reluctance and discouragement. We have not taken into consideration the *wear and tear of conscience*, and its final effects on character, in making flimsy excuses, delaying what might be accomplished.

MANUFACTURE OF GLASS. —A correspondent of the Christian Mirror gives the following account of the manufacture of tumblers: —

As the manufacture of the pressed glass tumblers may not have been witnessed by many of your readers, I will describe it in a few words. In the first place, they have a brass mould, consisting of a solid mass, about as large over as a half-peck measure, containing a hollow in it, exactly in the form of the tumbler to be made, with a follower of brass, of the same form, but so much smaller as to fit the inside of the tumbler. When the two parts of the mould are put together, the space between them is the exact thickness of the vessel required.

In the process of manufacturing, three men and two boys are required. The first thing done, is for one of the men to dip an iron rod in the melting glass, and move it about till he has a sufficient quantity of the fluid mass on the end of his rod; he then holds it over the hollow of the mould, and with a pair of shears cuts off what he judges to be just enough to constitute the tumbler. Instantly the other man brings down the follower with level power, and the melted glass is so compressed as to fill the cavity of the mould. He then turns his mould bottom up, with a little blow, and the tumbler drops red hot upon a stone table. One of the boys, with an iron rod having a little melted glass on its end, presses it on the bottom of the tumbler, and it slightly adheres. He then holds it in the mouth of a glowing furnace, turning it rapidly, till it is almost in a melting state, when the third man takes it, and, whirling the rod and tumbler on a sort of arm of a chair, he holds a smooth iron tool against the edge of the tumbler till all the roughness is removed from its edges, when a boy takes the rod from him, and by a slight stroke to the end of it, drops the tumbler, and places it in a hot oven, to cool gradually. These five hands will make a beautiful tumbler in about forty seconds, or about one hundred in an hour.

TO PRODUCE THE EXACT LIKENESS OF ANY OBJECT INSTANTLY ON PAPER. — This may be readily effected by laying the paper on a table and holding a double convex lens (a common sun-glass) over it, and then placing a mirror over the lens, in an oblique position, so as to face partly towards the object that is to be represented. The rays of light, passing from the object to the mirror, will be reflected downward through the lens, and produce the likeness of the object in full colors on the paper. This experiment may easily be made in the evening, by reflecting the flame of the candle in this same manner, which will appear very brilliant on paper. But in order to render the reflection of an object distinctly visible by daylight, it may be requisite to exclude nearly all the light from the paper, except what falls through the lens. In all cases, the lens must be placed at a distance above the paper, according to its focus, at the distance at which it would contract the rays of the sun to the smallest point.

FIRE AND WATER-PROOF CEMENT. — To half a pint of milk put an equal quantity of vinegar, in order to curdle it; then separate the curd from the whey, and mix the whey with four or five eggs, beating the whole well together. When it is well mixed, add a little quicklime through a sieve, until it has acquired the consistence of thick paste. With this cement, broken vessels and cracks of all kinds may be mended. It dries quickly, and resists the action of water, as well as of a considerable degree of fire.

A CEMENT FOR STOPPING THE FISSURES OF IRON VESSELS. — Take two ounces of muriate of ammonia, one ounce of flowers of sulphur, and sixteen ounces of cast-iron filings or turnings; mix them well in a mortar, and keep the powder dry. When the cement is wanted, take one part of this and twenty parts of clean iron filings or borings, grind them together in a mortar, mix them with water to a proper consistence, and apply them between the joints.

TO PREVENT IRON FROM RUSTING. — Warm your iron till you cannot bear your hand on it without pain to yourself. Then rub it with new and clean white wax. Put it again to the fire till it has soaked in the wax. When done, rub it over with a piece of serge. This prevents the iron from rusting afterwards. — *N. Y. Far. & Mech.*

TO STAIN WOOD LIKE EBONY. — Take a solution of sulphate of iron, and wash the wood over with it two or three times; let it dry, and apply two or three coats of a strong decoction of logwood; wipe the wood when dry with a sponge and water, and polish with oil.

GROWING TEA IN THE UNITED STATES.

By the following paragraph, copied from the New York Journal of Commerce, it appears that an experiment in the culture of the tea plant in this country is about to be tried under favorable circumstances. It is the opinion of many well-informed persons, that it will prove successful.

THE TEA PLANT IN THE UNITED STATES. — The planters and farmers of the Southern States will be gratified to learn that seven cases of black and green tea plants, Chinese stock, have just arrived from London in the ship American Eagle, shipped by Dr. Junius Smith, during his late visit to that city. There are five hundred plants, of from five to seven years' growth; all are designed by the doctor for seed plants. A small quantity of tea-seed was brought out by him in the steamship Britannia, which was received in London overland from the north-west provinces of India. We understand the doctor designs to proceed soon to the south, with a view of forming a plantation. More plants and seed are expected from India and China this season, and if we may judge from the progress already made, we have now the means in hand of extending tea plantations throughout such sections of our country as may be found adapted to their culture. — *Ohio Cultivator.*

SPONTANEOUS COMBUSTION.

At the City Gas Works at Philadelphia, vaults had been constructed for the bituminous coal used in making the gas, and into which the coal was packed very close for the saving of room. A few weeks since, spontaneous combustion was observed in these vaults; but it was put out (supposed) with but little trouble. Last Saturday week, however, the fire burst out again, and was not subdued without a great loss of coal, after several hours of unremitting toil by the city fire department. — *Scientific American.*

STATEMENT OF BRIGHTON MARKET.

For 1848.

40,784 Beef Cattle.	Sales estimated at	$1,590,576
20,553 Stores.	" " "	493,272
146,755 Sheep.	" " "	264,159
87,690 Swine.	" " "	482,295
		$2,830,302

1847.

43,425 Beef Cattle. 20,738 Stores. 133,550 Sheep. 62,015 Swine.	Sales estimated at	$2,719,462

1846.

38,670 Beef Cattle. 151,064 Stores. 105,350 Sheep. 44,940 Swine.	Sales estimated at	$1,871,113

1845.

48,910 Beef Cattle. 13,275 Stores. 107,960 Sheep. 56,580 Swine.	Sales estimated at	$1,893,648

THE APHIS ON TREES.

Messrs. Editors: Having a small, young orchard, of about sixty trees, of the best cultivated varieties, I was greatly tried on finding that the above insect was doing great injury to the new growth. The leaves were curled up and blackened, the young shoots retarded in their growth, and in some instances entirely killed. My quince and seedling apple-trees of the second year's growth were in a still worse condition; many of the tops being so completely covered that they were destroyed.

My first remedy was a strong infusion of tobacco — say four ounces to six quarts of boiling water. This was placed in a suitable vessel, which was held by another person, whilst I carefully bent down the limbs, one or two at a time, and immersed the ends of them in the infusion. A few trees were treated in this manner. The insects were killed by the tobacco infusion; but I thought the effect on the young shoots and tender leaves rather injurious.

While reflecting on the subject, I remembered having read that the *bitter principle* was destructive to insects. I seized the idea, and resolved to try it. The bitter selected was the common quassia of the shops, as being cheap and intensely bitter. Half a pound of the quassia chips were boiled for a few minutes in six quarts of water. When the decoction was cold, it was used in the same way as the tobacco infusion, with complete success, and without any apparent injury to the leaves or new growth. All the insects that were wet with the liquid were killed.

Many of my young seedling apple-trees, that looked so miserably three weeks ago, are now sending out a thrifty growth, which contrasts pleasantly with the blackened and curled foliage below, which was nearly destroyed by the wood-louse.

Would strong bitter infusions destroy lice on cattle and stock? It is cheap and perfectly safe — safer, in my opinion, than unguentum or tobacco.

E. G. MYGATT.

Richmond, McHenry Co., Ill., *Aug.* 21, 1848.
— *Prairie Farmer.*

WOODEN RAILROADS.

Mr. Clowes, of Sullivan county, N. Y., has published some essays showing the advantages and economy of building railroads altogether of wood — wooden rails and wooden sleepers. The opinions of Mr. Clowes are good and worthy of attention. Where timber is so abundant and cheap, as it is in our country, we think that railroads of this kind would not only be of great benefit, especially to our farmers in the rural districts, but would be of great benefit to our mechanics and merchants, who dwell in our cities and villages also. The roads in our agricultural districts are not good, although the timber is abundant. Now, just let some main tracks of strong, deep, and broad wooden rails be laid through the most central and densely-populated parts of the country, as auxiliaries to the main lines of the iron tracks, and let broad-wheeled locomotives, built upon the plan of Mr. Sellers, be placed upon the wooden tracks, so as to carry at a cheap rate the agricultural products of our farmers to market, and great benefits would thus be conferred both upon our rural and municipal population. It frequently costs more to bring agricultural products to market than the original price at the farmer's dwelling. Every improvement, therefore, that cheapens transit, is certainly a benefit to every class of our citizens. — *Scientific American.*

EFFECT OF ETHER ON PLANTS.

At a meeting of the New York Farmers' Club, July 18, the following was read: The *Mimosa pudica* being placed under a glass vase with cotton wet with the ether, in twenty minutes the plant lost all its sensibility, and could not be made to move by touching it with a pin. At its most susceptible parts, some change in its color was perceptible. The plant was ten minutes insensible, and then gradually recovered. This experiment was often repeated, and always with the same results. The experiment was tried on the *Oxalis sensitiva*, which is less irritable than the first named, and it did not lose its susceptibility in less than twenty-five minutes, and recovered slowly. The plant *Dionæa muscipula*, after twenty minutes, began to close up its young leaves gradually, and then lost *all* its sensibility.

EFFECT OF DOMESTICATION ON BIRDS.

Professor Low, in speaking of the effect of domestication on birds, says, "They lose the power of flight by the increase of size of their abdomen, and the diminished power of their pectoral muscles and other parts of their body are altered to suit this conformation. All their habits change; they lose the caution and sense of danger, which, in their native state, they possessed. The male no longer retires with a single female to breed, but becomes polygamous, and his progeny lose the power and the will to regain the freedom of their race."

AGRICULTURAL SCHOOLS IN FRANCE.

At a recent session of the National Assembly of France, the principal part of the day was devoted to the bill relative to the agricultural schools. It was resolved that one of these institutions should be founded and maintained in each department at the public expense, and further, that the country should be divided into agricultural districts, not exceeding twenty, in each of which a government school is to be established.

"Business *vs.* Lounging. — Call upon a business man in business hours, on business only; transact the business, and then go about your business, that he may have time to finish his."

SPEED THE PLOUGH.

Heaven speed the plough! and smile upon the crown
Of Ceres, bless the efforts of all men
Who labor heartfully on dale or down,
The plain luxuriant, or the mountain glen,
Evoking Nature's gifts, till o'en the fen
Teems with abundance, and the general land
Shines worthy of Earth's worthiest citizen,
Who bids the sickle triumph o'er the brand!
Heaven speed the plough! Fair Nature's shuttle true,
The farmer is her weaver, and the field
Her web and woof! Long ages but renew
Proofs of her power, while rots the warrior's shield.
Rarely hath shame flushed on a nation's brow
Whose honest prayer hath been, *God speed the plough!*

OLDEN TIMES.

Farmers' wives, in olden times had lots of work to do. In the reign of Henry VIII., Sir A. Fitzherbet wrote a treatise entitled the "Rock of Husbandry," in which he says, —

"It is a wyve's occupation to wynowe oll manner of cornes, to make malte, to washe and wringe, to heye, sheve corn, and such other. And to go, ryde to the market and sell butter, cheese, milk, eggs, chickens, capons, beevers, pygges, geese, and all manner of cornes."

CURIOUS GROWTH OF ROOTS.

An instance occurs in Leigh Woods, near Bristol, which remarkably illustrates the tendency of roots to grow towards the spot most fitted to afford them nutriment. In a little hollow on the top of the shell of an old oak, the outer layers of which, however, and the branches, are still vegetating, the seed of a wild-service tree was accidentally sown. It grew there for some time, supported, as it would appear, in the mould formed by the decay of the trunk on which it had sprouted; but this being insufficient, it has sent down a large bundle of roots to the ground, within the shell of the oak. Those roots have now increased so much in size, that, as they do not subdivide until they nearly reach the ground, they look like so many small trunks. In the soil, however, towards which they directed themselves, there was a large stone — about a foot square; and, had their direction remained unchanged, they would have grown down upon this. But, about half a yard above the ground, they divide, part going to one side and part to the other, and one of them branching into a fork, of which one leg accompanies one bundle, and one the other; so that, on reaching the ground, they enclose the stone between them, and penetrate on the two sides of it. — *Carpenter's Vegetable Physiology.*

ICE MACHINE.

We learn from the Cincinnati Gazette, that an ingenious mechanic of that city has constructed, and put into successful operation, a machine for the manufacture of ice. By means of this machine, such a degree of cold can be obtained as to form ice instantly, and which can be afforded at a cheaper rate than it is now sold at. The machine can be used in any climate, is cheap, and can be kept in order. The patentee values this right at half a million of dollars.

Worthy to be written in letters of gold. The motto of Cotton Mather over his door was, "Be short." "Whatsoever thy hand findeth to do, do it with thy might."

THE OLIO.

THE FRENCHMAN AT HIS ENGLISH LESSONS.

FRENCHMAN. Ha, my good friend, I have met with one difficulty — one very strange word. How do you call h-o-u-g-h?

TUTOR. *Huff.*

FRENCHMAN. Tres bien, *huff;* and *snuff* you spell s-n-o-u-g-h — ha?

TUTOR. O, no, no; *snuff* is s-n-u double-f. The fact is, words in *ough* are a little irregular.

FRENCHMAN. Ah, very good. 'Tis beau'ful language. H-o-u-g-h is *huff.* I will remember; and c-o-u-g-h is *cuff.* I have one bad *cuff* — ha?

TUTOR. No, that is wrong. We say *kauf,* not *cuff.*

FRENCHMAN. *Kauf?* Eh, bien. *Huff* and *kauf;* and, pardonnez moi, how do you call d-o-u-g-h — *duff* — ha?

TUTOR. No, not *duff.*

FRENCHMAN. Not *duff?* Ah! oui; I understand; it is *dauf* — hey?

TUTOR. No, d-o-u-g-h spells *doe.*

FRENCHMAN. *Doe!* It is very fine — wonderfu. language! It is *doe;* and t-o-u-g-h is *toe,* certainement. My beefsteak was very *toe.*

TUTOR. O, no, no; you should say *tuff.*

FRENCHMAN. *Tuff?* Le diable! and the thing the farmer uses — how you call him — p-l-o-u-g-h! *pluff* — ha? You smile. I see I am wrong. It is *p'auf?* No! Ah, then it is *ploe,* like *doe.* It is beau'ful language, ver' fine — *ploe.*

TUTOR. You are still wrong, my friend. It is *plow.*

FRENCHMAN. *Plow!* Wonderful language! I shall understand ver' soon. *Plow, doe, kauf;* and one more — r-o-u-g-h — what you call General Taylor — *rauf* and ready? No? certainement, it is *row* and ready?

TUTOR. No! R-o-u-g-h spells *ruff.*

FRENCHMAN. *Ruff* — ha! Let me not forget. R-o-u-g-h is *ruff,* and b-o-u-g-h is *buff* — ha?

TUTOR. No, *bow.*

FRENCHMAN. Ah! 'tis ver' simple — wonderful language: but I have had what you call e-n-o-u-g-h! ha! what you call him?

THE END OF LIFE. No man has a right to live solely for himself; but should live to do good, and scatter blessings all around him.

How beautiful, how sublime the precept, "Forgive us our trespasses as we forgive those who trespass against us." — But who would willingly be thus adjudged? Who is there, that does not hope for more mercy at the hand of his Maker, than he has shown to his fellow-man?

A warm heart requires a cool head. So a ship that carries a great deal of sail needs a first-rate helmsman.

Dr. Franklin says, "He who rises late may trot all day, but never overtakes his business."

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at $1 a year, or five copies for $4, payable in advance. It may be neatly bound at 18¾ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume.

☞ THE POSTAGE ☜

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.

STEREOTYPED AT THE
BOSTON TYPE AND STEREOTYPE FOUNDRY.